CS-6-1 Oyster Bayou Marsh Creation

Coast 2050 Strategy - Regional Strategy #6; Use dedicated dredging or beneficial use of sediment for wetland creation or protection.

Project Location - Region 4; Calcasieu/Sabine Basin; Cameron Parish; east of Mud Lake from Highway 82 to Oyster Lake. The project area lies in the middle of the Coast 2050 Mud Lake unit. The project consists of three subareas comprised of saline marsh, brackish marsh, and shallow open water bottoms. Area A is located adjacent to Oyster Lake at the terminus of Oyster Bayou. Area B is located east of Mud Lake and west of Mud Pass and Area C is located to the east of Mud Pass.

Problem - Most of the wetland loss in the project area has resulted from subsidence, saltwater intrusion, and hydrologic modification from oil and gas exploration. Subsidence rates in this unit are intermediate (1.1-2 feet per century). Most wetland loss in Areas A and B occurred during 1956-78, whereas most the wetland loss in Area C occurred more recently. The project would offset some of the land loss in the project area by the direct creation of intertidal marsh

Goals - Marsh creation and marsh nourishment with dedicated dredging.

Proposed Solution - Construct intertidal marsh elevations in Areas A, B, and C by placing sediment dredged from the Gulf of Mexico semi-confined to an initial elevation of +1 foot above average marsh level with a final target elevation equal to average marsh level. To ensure some aquatic habitat remains in the project area for waterfowl and estuarine fish, approximately 60% of the open water in Areas A, B, and C would be filled to create 36, 151, and 45 acres of marsh, respectively. Construction of earthen containment dikes would be minimized to the maximum extent practicable and would be gapped in strategic locations upon contractor demobilization to ensure tidal connection. The first spring after construction the created platform would be hand planted primarily with *Spartina alterniflora* cv. *Vermilion* and *Spartina patens* on 5-ft centers.

Project Benefits - The project would provide benefits to 773 acres, and would create approximately 223 acres over the 20-year project life.

Project Costs – The total fully funded cost is $16,541,800 and the fully funded first cost is $16,217,600.

Risk/Uncertainty and Longevity/Sustainability A low degree of risk is associated with this project because proven marsh creation techniques will be used. The project should continue providing benefits for more than 20 years after construction because a large amount of marsh will be created initially.

Sponsoring Agency and Contact Person - National Marine Fisheries Service
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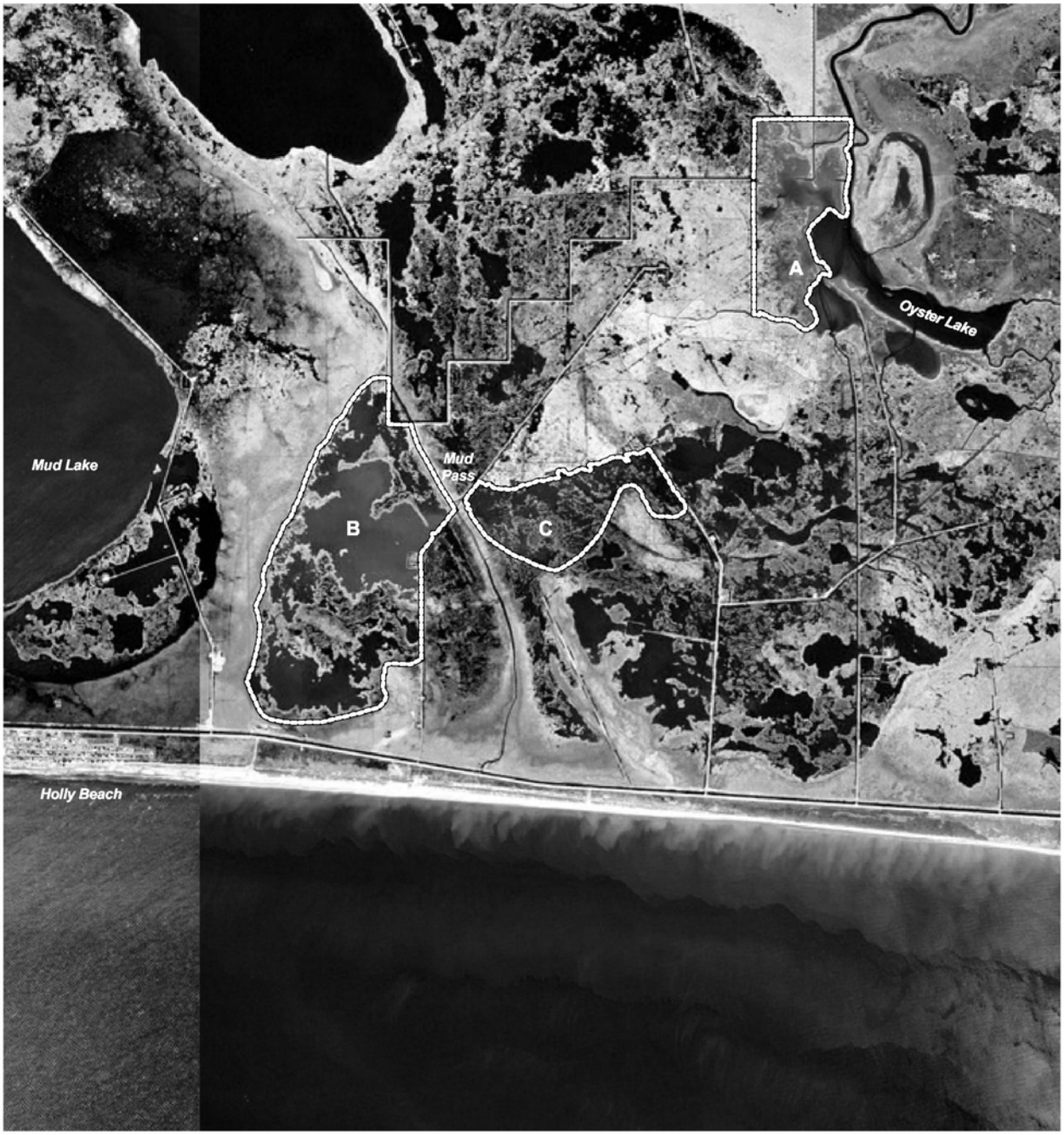

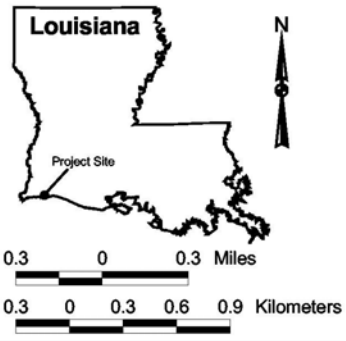

Project area

Data Source:
U.S.Geological Survey
National Wetlands Research Center
Coastal Restoration Field Station

LA Department of Natural Resources
Coastal Restoration Division

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Region 4

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